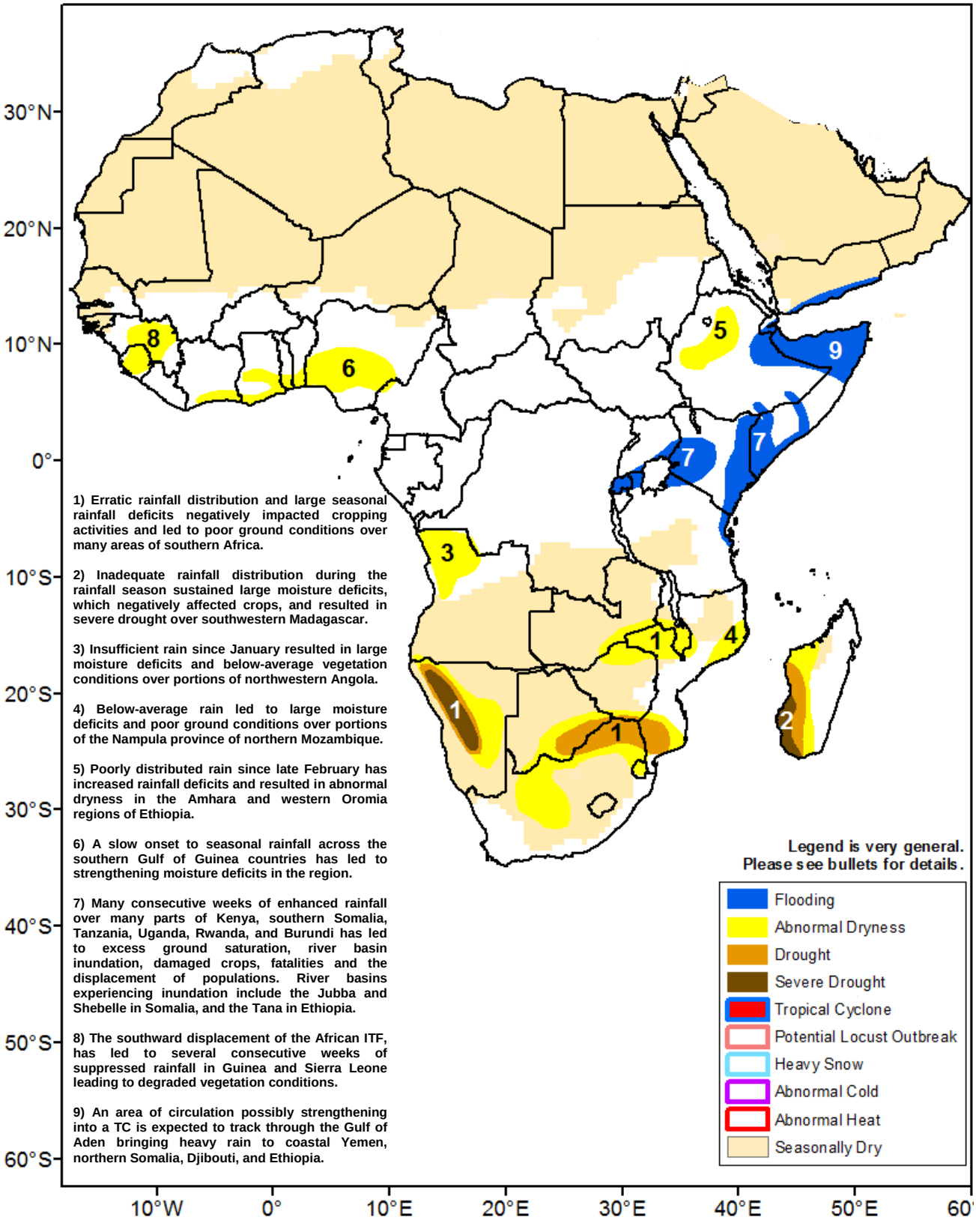
Climate Prediction Center's Africa Hazards Outlook
May 17 – May 23, 2018

- **Heavy rainfall diminished in East Africa, but river flooding continues.**
- **A beneficial increase in rains was observed over parts of West Africa.**



1) Erratic rainfall distribution and large seasonal rainfall deficits negatively impacted cropping activities and led to poor ground conditions over many areas of southern Africa.

2) Inadequate rainfall distribution during the rainfall season sustained large moisture deficits, which negatively affected crops, and resulted in severe drought over southwestern Madagascar.

3) Insufficient rain since January resulted in large moisture deficits and below-average vegetation conditions over portions of northwestern Angola.

4) Below-average rain led to large moisture deficits and poor ground conditions over portions of the Nampula province of northern Mozambique.

5) Poorly distributed rain since late February has increased rainfall deficits and resulted in abnormal dryness in the Amhara and western Oromia regions of Ethiopia.

6) A slow onset to seasonal rainfall across the southern Gulf of Guinea countries has led to strengthening moisture deficits in the region.

7) Many consecutive weeks of enhanced rainfall over many parts of Kenya, southern Somalia, Tanzania, Uganda, Rwanda, and Burundi has led to excess ground saturation, river basin inundation, damaged crops, fatalities and the displacement of populations. River basins experiencing inundation include the Jubba and Shebelle in Somalia, and the Tana in Ethiopia.

8) The southward displacement of the African ITF, has led to several consecutive weeks of suppressed rainfall in Guinea and Sierra Leone leading to degraded vegetation conditions.

9) An area of circulation possibly strengthening into a TC is expected to track through the Gulf of Aden bringing heavy rain to coastal Yemen, northern Somalia, Djibouti, and Ethiopia.

Flooding issues continue despite above-average rainfall becoming more localized last week.

Rainfall was suppressed for large portions of East Africa during the last 7 days. Exceptions included coastal regions of Tanzania, Kenya and southern Somalia which received 7-day rainfall totals over 100mm according to satellite estimates (**Figure 1**). Exceptions also included a few local areas of central Kenya, as well as western Ethiopia. Seasonal dryness is beginning to set in across eastern Kenya bringing some much needed relief to saturated regions. Much of central and eastern Ethiopia was dry, but the heaviest rain of the season so far was observed in western Ethiopia - more than 100mm in some areas. Though the abnormally heavy rain has subsided in many places, river flooding issues continue. Notably, a dam brake in Nakuru province displaced many people and caused fatalities.

Through the end of April, the character of the rainfall anomalies changed across Ethiopia. The Belg-producing areas of central Ethiopia saw a reduction in deficits, while areas in western Ethiopia experienced a delayed and poor onset to rains. The rainiest week of the young season has stopped this trend and moisture deficits have begun to shrink. Still, 30-day moisture deficits in several areas are between 25 and 50mm (**Figure 2**) and less than 50% of normal. Concurrently, vegetation health has degraded rapidly as evidenced by the vegetation health index.

Further south, extremely large seasonal moisture surpluses (100-300+mm) continue to encompass much of Kenya and northern Tanzania due to heavy rainfall during March and April. The majority of areas in Southern Ethiopia, Kenya and Tanzania have received twice the average amount of seasonal rainfall.

For the upcoming outlook period, models suggest the continuation of heavy rainfall over western Kenya, Rwanda and Burundi, South Sudan and Western Ethiopia. Other areas that favor enhanced rains include northern Somalia, Djibouti and central Ethiopia, and coastal Yemen, where an area of enhanced convection and possible TC could induce flooding rains.

Satellite Estimated Total Rainfall (mm)
Valid: May 09 – May 15, 2018

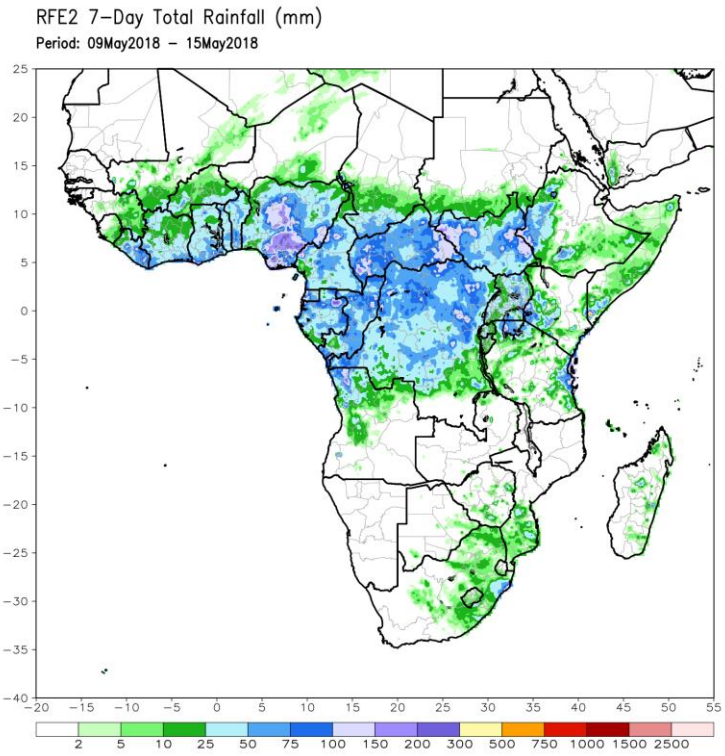


Figure 1: NOAA/CPC

Increased rains have diminished or erased rainfall deficits in parts of the region.

A large increase in rainfall has been observed during the past 7 days in Nigeria and along the broader Gulf of Guinea Coast. Many parts of central and southern Nigeria observed 100-200mm of rain according to satellite estimates. Slightly lesser, but still above average amounts of 50-100mm were observed in southern Liberia, Cote D'Ivoire, Ghana Togo and Benin. These rains significantly reduced or eliminated 30-day moisture deficits that had developed since early April in many of those regions. A poor and delayed start to rains is now starting to be observed in Burkina Faso and southern Mali. Elsewhere, in Guinea and Sierra Leone, much suppressed rain during the last several weeks has led to rapidly increasing moisture deficits (up to 100mm, **Figure 2**) and degrading vegetation health.

During the next week, above-normal rainfall is favored by models in Sierra Leone, Guinea Liberia, and Cote D'Ivoire. Such a shift in pattern would be highly beneficial for soil moisture and vegetation in these regions. Near or below normal rainfall is forecast through much of the rest of the Gulf of Guinea region. 7-day totals of between 10-50mm are likely to be observed for most areas.

Satellite Estimated Rainfall Anomaly (mm)
Valid: April 16 – May 15, 2018

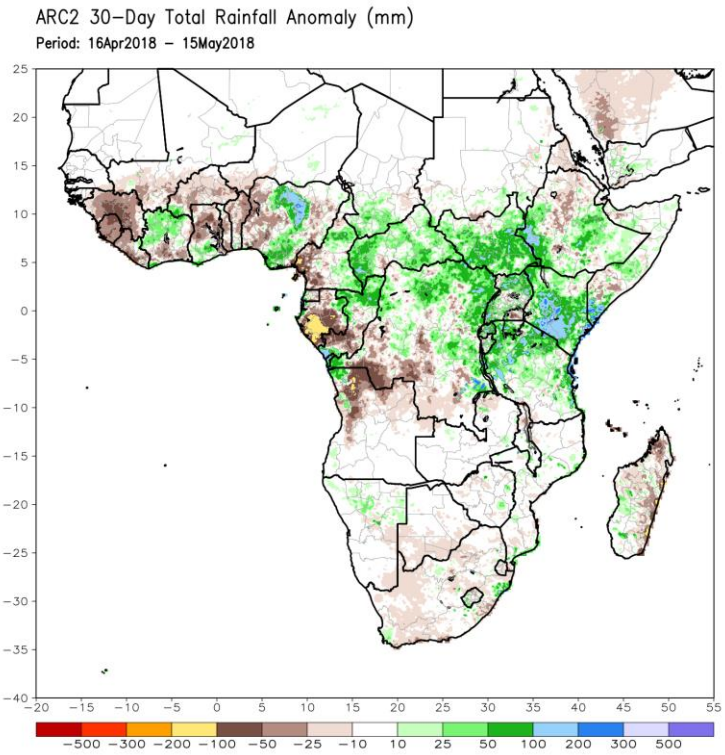


Figure 2: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.